

Division 3 Landscaping

The purpose of these landscaping, Street tree, screening, and buffer requirements is to provide standards that will protect the health, safety and general welfare of the public, enhance property values, and improve the appearance of the community through preservation of natural resources, trees, and native plants and maintaining the ecological balance of the area. These minimum requirements will:

- Safeguard and enhance property values and to protect public and private investment.*
- Encourage preservation of existing trees and other significant vegetation*
- Encourage proper selection, installation, and maintenance of plant materials that result in the conservation of natural resources, including water.*
- Reduce the negative environmental effects of development while protecting and enhancing the value of developed properties and the surrounding area.*
- Reduce soil erosion and increase infiltration in permeable land areas essential to storm water management and aquifer recharge.*
- Mitigate air, dust, noise, heat and chemical pollution and glare and other adverse environmental effects of development.*
- Reduce the “heat island” effect of impervious surfaces, such as parking lots, by cooling and shading the surface area and breaking up large expanses of pavement.*
- Establish a landscape theme including Street trees and Streetscape designs to be used throughout the City to promote the overall character and identity of the community;*
- Address the design of entryways into the City to express the community’s values;*
- Preserve existing native vegetation as an integral part of the wildlife habitats, and incorporate native plants and ecosystems into landscape design;*
- Promote innovative and cost-conscious approaches to the design, installation, and maintenance of landscaping while encouraging xeriscape planting techniques, water and energy conservation;*
- Screen unsightly equipment or materials from the view of persons on public Streets or adjoining properties and buffering from uncomplimentary land uses;*
- Maintain and increase property values by requiring site appropriate landscaping to be incorporated into development that is designed and installed by a qualified landscape professional.*

- *Promote walkable, pedestrian-scale Streetscapes, traditional neighborhoods, and compact centers by exempting uses which relate to each other functionally and visually from certain requirements of this Section.*
- *Promote water conservation through efficient landscape and irrigation design.*
- *To promote and protect the health, safety, and welfare of the public by creating an urban environment that is aesthetically pleasing and that promotes economic development through an enhanced quality of life.*

This Section implements the following policies of the Master Plan:

- *Neighborhoods, Policy 3c: amend the landscape and other applicable ordinances to include buffering provisions between residential and nonresidential uses.*
- *Natural Resources, Policy 2a: create guidelines for demolition and construction which protects trees and other vegetation.*
- *Natural Resources, Policy 2c: Continue to implement and update, as necessary, the landscape and tree ordinances for public and private properties to emphasize preservation of established native vegetation and use of locally native or adapted drought tolerant species.*
- *Natural Resources, Policy 2d: Continue to implement and update, as necessary, the landscape and tree ordinances for public and private properties to emphasize preservation of established native vegetation and use of locally native or adapted drought tolerant species.*

35-510 Buffers

The intent of buffering is to implement Policy 3c of the Neighborhoods Element of the Master Plan to provide landscaped separation between residential and nonresidential uses and to screen from view certain land uses that may create visual clutter and distraction. The standards of this section provide for increases in the width and the opacity of the buffer yard as the land use intensity of the new or expanded development increases.

(a) Applicability

35-530.1.1 Activities Subject to Buffer Regulations

This section shall apply to any of the following, except where exempted pursuant to subsection (2), below.

- A. The construction or erection of any new building or structure for which a building permit is required.

- B. Any enlargement exceeding one thousand (1,000) square feet or ten (10) percent in area, whichever is greater, of the exterior dimensions of an existing building for which a building permit is required. When a building or parking lot is enlarged to the extent that a buffer of at least 100 feet in lineal footage is required, the requirements of this Section shall be applied incrementally such that buffers shall be required only in proportion to the enlarged building area or off-street parking area to the existing development. For example, a ten percent (10%) increase requires ten percent (10%) of the required buffering that would otherwise be required for the entire development. No buffer is required if the incremental footage imposed by this section is less than 100 lineal feet.
- C. Any construction of a new parking lot or expansion of an existing parking lot within the Street Yard by more than two thousand (2,000) square feet or ten (10) percent in area whichever is greater.

35-530.1.2 Exemptions

This section shall not apply to the following situations:

- A. Residential uses adjoining residential uses within any residential zoning district.
- B. Agricultural uses.
- C. Non-residential uses adjoining other non-residential uses of the same zoning classification.
- D. The reconstruction of an existing building of which fifty (50) percent or less of the floor area was destroyed or ruined by flooding, fire, windstorm or act of God. This exemption shall apply only where reconstruction of that building will not result in an increase in building size or paving area of the parking facilities to be provided.
- E. Interior finish work or remodeling in a portion of a building unless the work results in an increase in the paving area of the parking facilities within the Street yard or in an enlargement of the exterior dimensions of an existing building.
- F. Any use, building or structure for which only a change of use is requested, and which use does not increase the existing building square footage.

- G. Single-family dwellings located on an existing lot of record.
- H. Contiguous commercial parcels or land areas under Common Ownership.

Commentary: subsection H addresses situations where a parcel is rezoned with several different zoning classifications, and one of the classifications acts as a "buffer" for the other. For example, a landowner rezones part of a parcel to "L", with a strip adjoining a residential area zoned "O-1." A Type "E" buffer is normally required between the "L" and "O-1" districts. No buffer is required between the portion of the parcel zoned "L" and "O-1" internal to the property in this situation.

35-530.1.3 Buildings within Street yard of another building

A building located within the Street yard of another building shall be considered as a separate building site unless it has previously been included within an approved landscape plan.

35-530.1.4 Reduction in Required Buffer Yards

The buffer yard requirements for a property to be developed shall be reduced where:

- A. a buffer yard exists on an abutting property, and the net buffer yard satisfies the minimum buffer yard requirements of this Section; or
- B. the adjoining property owners have provided a written agreement restricting the use of an established or proposed buffer yard to the uses provided for in this Section.

36 Landscape plan

Landscape materials for buffer yards shall be consistent with Appendix E to this Chapter. A registered landscape architect, where required by this subsection, shall develop a plan that utilizes xeric landscaping and native plants to the extent practicable. Activities subject to this Section which exceed 4,300 square feet of impervious surface shall include materials installed in conformance with an approved landscape plan bearing the seal of a registered landscape architect. The Landscaping Plan shall be approved as provided in § 35-476 of this Chapter.

37 Types of Buffer Yards Required

- (1) Table 510-1 shows when a buffer yard shall be required to buffer an adjoining zoning district. Uses in the "Adjoining Zoning District" are not required to provide the buffer yard. The applicant shall install the type of buffer yard as indicated in the table.

Commentary: For example, if the proposed development is located in an I-1 zoning district (see row (10) of the table), and the "Adjoining Zoning District" is zoned RE (see the column (2) under Adjoining Zoning District), then the applicant shall install a Type E buffer. In addition, if the development adjoins a Street classified as a "Major Arterial" (see column (12) under the Adjoining Street Classification), then the applicant shall install a Type C buffer yard where the front yard adjoins the Street right-of-way line. However, a proposed development zoned "RE" (see row (2) of the table) which adjoins an "I-1" district (see column (10) of the Table) is not required to provide a buffer yard.

- (2) In order to encourage the preservation of natural vegetation, the Applicant may substitute a Type "N" buffer consistent with subsection (d), Table 510-2 for any category of required.
- (3) Utility companies shall provide a plant buffer within the Street yard of electrical substations, water pumping/storage sites, and wastewater treatment plants. The buffer shall comply with the requirements for a Type "E" buffer, below.

Table 510-1: Required Buffer Yards

Zoning District	Adjoining Zoning District											Adjoining Street Classification		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RP	RE, R-20	R-6, R-5, R-4, RM-6, RM-5, RM-4, DR	MF-25, MF-33	MF-40, MF-50	NC	O-1, C-1, C-2	O-2, C-3, BP	D	L, I-1	I-2	Major Arterial	Minor Arterial	Collector
(1) RP	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
(2) RE, R-20	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
(3) R-6, R-5, R-4, RM-6, RM-5, RM-4, DR	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
(4) MF-25, MF-33	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	F	A	N/a	N/a
(5) MF-40, MF-50	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	A	N/a	N/a
(6) NC	C	C	B	N/a	N/a	N/a	N/a	N/a	N/a	E	E	B	A	A
(7) O-1, C-1, C-2	C	C	B	N/a	N/a	A	N/a	N/a	N/a	E	E	B	A	A
(8) O-2, C-3, BP	C	C	C	C	N/a	A	N/a	N/a	N/a	N/a	D	B	B	A
(9) D	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
(10) L, I-1	E	E	D	E	E	E	E	N/a	N/a	N/a	N/a	C	C	B
(11) I-2	F	F	F	F	F	E	E	D	N/a	N/a	N/a	C	C	B

Notes: A, B, C, D, E, F: Buffer Yard Type Designations as shown in Exhibit below.
N/a: Not applicable – buffer yard not required.

* Where a use zoned O-1, C-1, C-2 adjoins an existing platted subdivision zoned RE or R-20 as of the effective date of this Chapter, a Type "D" Buffer shall be applied. Where a use zoned BP, O-2 or C-3 adjoins an existing platted subdivision zoned RE or R-20 as of the effective date of this Chapter, a Type "F" Buffer shall be applied.

38 *Buffer Types*

- (1) There are seven (7) types of buffer yards. Table 510-2 shows the minimum width and number of trees and/or plants required for each one hundred (100) lineal feet for each buffer yard. Figure 510-1 illustrates a typical buffer yard for each type. Each buffer yard type provides several plant material options. The Applicant may either plant new trees or plants, or preserve existing trees or plants, within the required buffer which meet the requirements of this subsection.

35-510(d) continued

Table 510-2. Minimum Plant Materials Required for Each Buffer Yard Type

Buffer Yard Type	Minimum Width (in feet)	Trees ¹		Shrubs ³			Fence (F), Berm (B) or Wall (W) ⁷
		Canopy	Understory ²	Large ³	Medium ⁵	Small ⁶	
A	10	2	2	-	-	16	-
Option	10	2	2	-	8	-	-
B	15	2	2	8	12	-	-
Option	15	2	2	6	8	6	-
C	15	2	4	9	8	-	F or W
Option	15	2	3	10	10	-	F or W
D	25	2	4	9	8	-	F or W
Option	25	2	3	10	10	-	B
E	30	2	4	14	4	4	F or W
Option	30	2	3	12	8	4	B
F	40	2	4	9	5	-	B & W
Option	40	1	4	6	8	8	B
N ⁸	20% reduction with minimum of 10 feet	Any combination of trees or shrubs is acceptable where: (1) the existing vegetation provides at least the number of equivalent planting units required by the required by Table 510-1 (see subsection (d)(2), below), or (2) the existing vegetation provides complete visual screening from the adjoining property.					-

¹ Canopy Trees required for Buffer Yard Types D, E, and F shall be large, shade trees, that reach a mature height of 60+ feet. See Appendix E. Where existing or proposed overhead electric lines conflict with tree canopies, understory trees may substitute for canopy trees.

² An understory tree is a small to medium deciduous tree, with a mature height of 15 to 25 feet.

³ At a minimum, 50 percent of the shrubs for Buffer Yard Types D, E and F shall be evergreen.

⁴ A large shrub is no more than 25 feet in height at maturity and may be either deciduous or evergreen.

⁵ A medium shrub is between 5 and 10 feet in height at maturity and may be deciduous or evergreen.

⁶ A small shrub is no more than 5 feet in height at maturity and may be either deciduous or evergreen.

⁷ A fence or wall a minimum height of six (6) foot high and two (2) one-half (½) inches thick shall be required where the land use abuts a residential district. The fence, wall or berm is required in addition to the trees and shrubs required by Table 510-2.

⁸ Natural area with native vegetation may be used to meet any of the above buffer yards requirements if the criteria of Table 510-2 are met. The width of a buffer yard shall be reduced by 20% when the criteria of Table 510-2 provided that the minimum width shall not be less than ten (10) feet. Irrigation requirements may be waived if no additional planting is required to meet this criteria.

Illustration of Buffer Yards

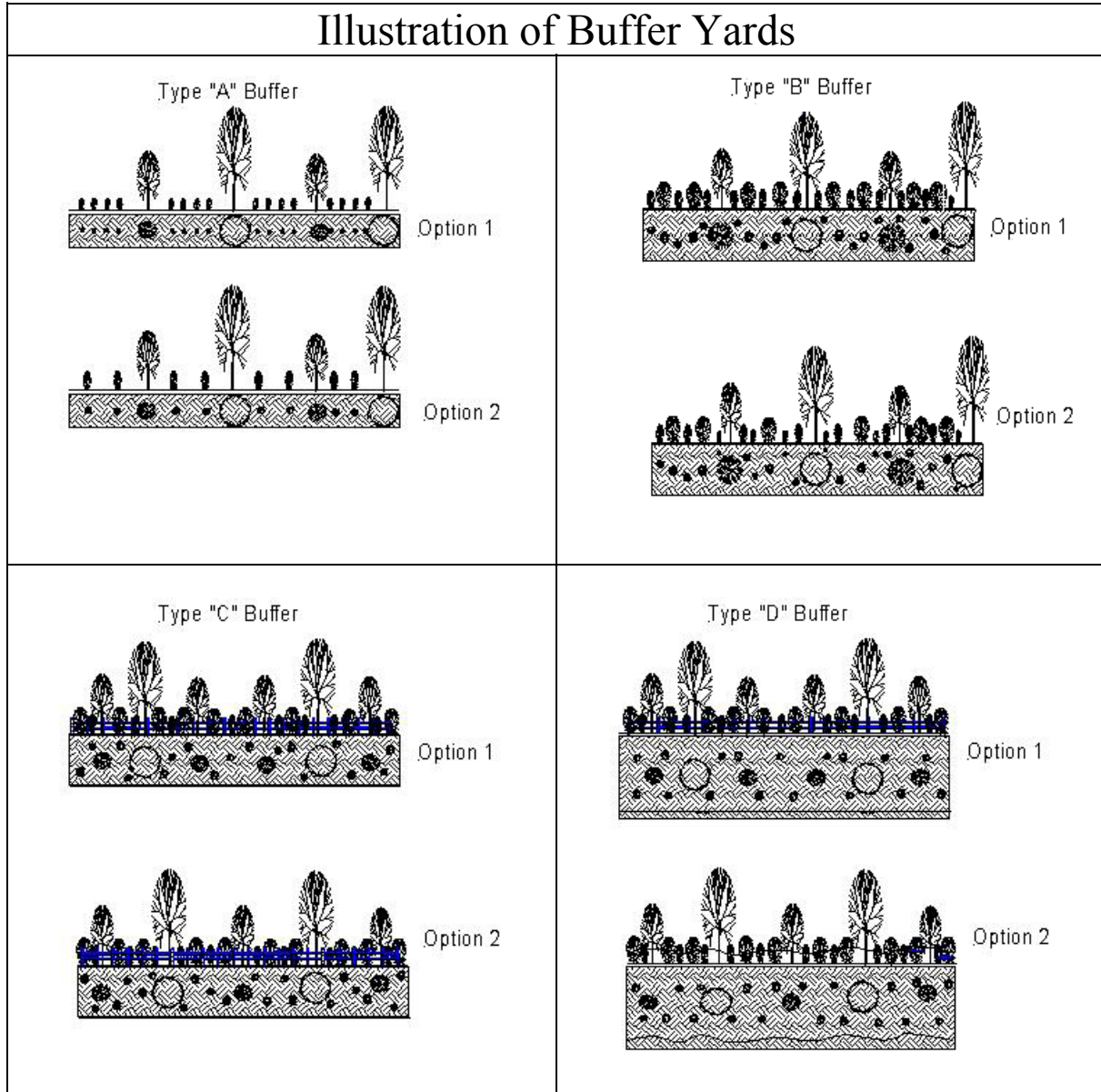
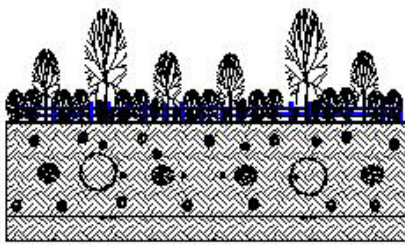
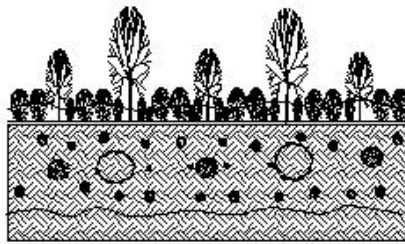


Illustration of Buffer Yards

Type "E" Buffer

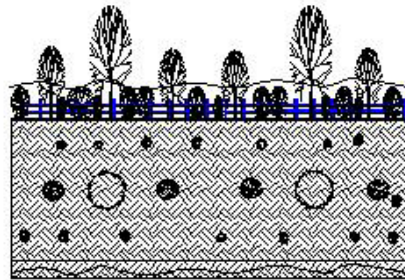


Option 1

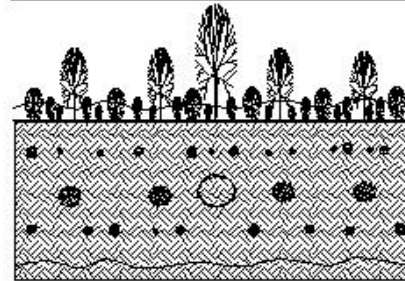


Option 2

Type "F" Buffer

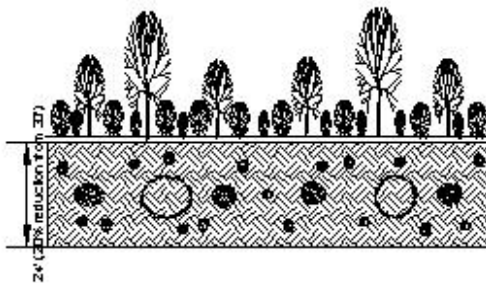


Option 1



Option 2

Type "N" Buffer
(Type "E" Baseline)



Key to illustrations:



Canopy Tree



Understory or Small Tree



Large shrub



Medium shrub



Small shrub



Fence



Berm

35-510(d) continued

- (2) The number of equivalent planting units (EPU's) for purposes of applying a Type "N" buffer, above, shall be calculated based on the following ratios: Canopy Trees = 1 EPU, Understory = 0.5 EPU, Large Shrubs = 0.25 EPU, Medium Shrubs = 0.1 EPU, and Small Shrubs = 0.05 EPU. Each buffer Type "A" through "F", above, shall be assigned the following number of EPUs for purposes of determining whether a Type "N" buffer may be substituted:

Buffer Type	EPU's
A	2.3
B	5.2
C	10.8
D	10.8
E	11.7

(Ord. No. 96564 § 2)

39 Location of Buffer Yard

- (1) A Buffer Yard required by this Section shall be provided along the side lot line of Abutting uses.
- (2) Buffer Yards are not required along the front property line.
- (3) At the rear property line of adjoining uses for which a Buffer Type A, B, or C is required in Table 510-1, the Applicant may elect to provide a solid fence at least six (6) feet in height in lieu of the buffer yard.

(f) Permitted Uses within the Buffer Yard

No active recreation area, storage of materials, parking, or structures, except for necessary utility boxes and equipment, shall be located within the buffer yard. The buffer yard may be included in the required building setback. Buffer yards may be used as a Greenway as defined in the Parks/Open Space Standards.

(g) Size and Type of Plant Materials

Trees shall measure a minimum of 1½ inch caliper when measured six (6) inches above grade. Shrubs shall reach a mature height within five (5) growing seasons but in no case shall required shrubs measure less than the height required by Table 511-1 at the time of planting, when measured from the grade to the top horizontal plane of the shrub. Plant materials shall be selected from the Plant List in Appendix E. Substitutions may be

permitted based on the recommendation of the qualified landscape professional preparing the plan. In addition, if a listed species is infested by fungi, disease or pests, a substitution may be recommended. In no case shall monoculture be permitted. Plant materials shall show a variety of texture, color, shape and other characteristics.

(h) Fences and Walls

- (1) Fences or walls shall be a minimum height of six (6) feet when used in Type D or E, and F Buffer Yards.
- (2) No fence or wall shall be required if an existing fence or wall on abutting property meets the requirements of this section.
- (3) The fence or wall shall be solid and one hundred (100) percent opaque, except as otherwise required herein. Fence material shall be a minimum of one-half ($\frac{1}{2}$) inches in thickness and of wood, precast concrete, metal, or wrought iron with an adjoining hedge which provides an opaque barrier. Corrugated and galvanized steel or metal sheets shall not be permitted.
- (4) Walls may be concrete, concrete block with stucco finish, masonry, stone or a combination of these materials. The support posts shall be placed on and faced toward the inside of the developing property so that the surface of the wall or fence is smooth on the adjoining property side.

(i) Berms

Berms shall have a slope not greater than the slope created in three (3) horizontal feet with a one (1) foot vertical rise. The surface of the berm that is not planted with trees and shrubs shall be covered with grass, perennial ground cover, vines, woody and herbaceous perennials, with mulch. Grass or other coverings shall be maintained in conformance with applicable City codes.

(j) Irrigation Required

Where an irrigation system is required, the irrigation system shall comply with the requirements of 30 TAC Chapter 344, §§ 344.72 – 344.77. No irrigation is required for a Type “N” buffer if no additional planting is required. An in ground irrigation system consisting of water lines, water emitters and a controller is required to have a separate meter service if the San Antonio Water System is the water purveyor. In addition to the above irrigation requirements the installation shall be designed in compliance with Section 35-511 Landscaping, Section (c) (6)

(Ord. No. 95573 § 7; (Ord. No. 98697 § 6)

35-511 Landscaping

In addition to the purposes recited generally for this Division, the purpose of this Section is:

- *To improve the appearance of commercial properties when viewed from the Street.*
- *To screen the unattractive aspects of commercial properties.*

(a) Applicability

(1) Generally

This section shall apply to any of the following, except where exempted pursuant to subsection (2), below.

- A. The construction or erection of any new building or structure for which a building permit is required.
- B. Any enlargement exceeding one thousand (1,000) square feet or ten (10) percent in area, whichever is greater, of the exterior dimensions of an existing building for which a building permit is required.
- C. Any construction of a new parking lot or expansion of an existing parking lot within the Street Yard by more than two thousand (2,000) square feet or ten (10) percent in area whichever is greater. Parking lots in residential zoning districts shall be subject to the requirements of subsection (e) of this Section.

(2) Expansion

When a building or parking lot is enlarged, the requirements of this Section shall be applied incrementally such that landscaping shall be required in the same proportion that the enlarged building area or off-street parking area has to the existing development. For example, a ten percent (10%) increase requires ten percent (10%) of the required landscaping.

(3) Exemptions

This section shall not apply to the following situations:

- A. Residential uses located within a residential zoning district.
- B. Agricultural uses
- C. The reconstruction of an existing building of which fifty (50) percent or less of the floor area was destroyed or ruined by flooding, fire, windstorm or act of God. This exemption shall apply only where reconstruction of that building will not result in an increase in building size or paving area of the parking facilities to be provided.

- D. Interior finish work or remodeling in a portion of a building unless the work results in an increase in the paving area of the parking facilities within the Street yard or in an enlargement of the exterior dimensions of an existing building.
- E. Any use, building or structure for which only a change of use is requested, and which requires no structural modifications that would increase its volume or scale.
- F. Single-family dwellings located on an existing lot of record.

(4) Buildings within Street yard of another building

A building located within the Street yard of another building shall be considered as a separate building site unless it has previously been included within an approved landscape plan.

(b) Landscape plan

Activities subject to this Section which exceed 4,300 square feet of impervious surface shall include landscape materials installed in conformance with the approved landscape plan bearing the seal of a registered landscape architect. The Landscaping Plan shall be approved as part of the underlying Application.

(c) Mandatory Criteria

(1) Screening

Off-Street loading spaces, refuse and outdoor storage areas, antennas, satellite dishes, and mechanical equipment within the Street yard shall be screened from all public Streets. The screening shall be a minimum of six (6) feet in height or a height sufficient to obscure the area or equipment requiring the screening, whichever is less. The screening may be provided by plants, a solid screen fence or wall, or a combination thereof. The height of plants shall be based on reaching their size at maturity within five (5) growing seasons.

(2) Acceptable landscape materials

- A. No artificial plant materials shall be used to satisfy the requirements of this section.
- B. Plant materials required by this section shall comply with the minimum size requirements of Table 511-1 at the time of installation. Plant height shall be measured from the average grade level of the immediate planting area to the top horizontal plane of the shrub at planting, for single trunk trees, the measurement shall be taken at 6 inches above grade level, and

for multi-trunk trees, the tree shall be measured from the average grade level of the immediate planting area.

- C. Planting areas shall consist of permeable surface areas only. The permeable surface areas for shrubs may be included within permeable surface areas required for trees.
- D. In satisfying the requirements of this section, the use of four (4) inches of organic mulch material shall be provided at the time of planting.
- E. Each large tree, small tree or large shrub shall be planted at least thirty (30) inches from the edge of any paved surface.

Table 511-1

	Minimum Caliper at the Time of Planting	Minimum Height at the Time of Planting	Minimum Planting Area
Trees	1½ inches for single trunk trees	Not applicable unless multi-trunk trees, in which case the tree shall be a minimum of six (6) feet in height at the time of planting	One hundred (100) square feet.
Small trees	1½ inches for single trunk trees	Six (6) feet for multi-trunk trees	Twenty-five (25) square feet
Large shrubs	Not applicable	Two (2) feet	Nine (9) square feet
Small to medium shrubs	Not applicable	One (1) foot	Eight (8) square feet

(3) Protection of Plant Areas

Plant areas must be protected from vehicular traffic through the use of concrete curbs, wheel stops, or other permanent barriers.

(4) General maintenance

Required plants shall be maintained in a healthy condition at all times. The property owner is responsible for regular weeding, mowing of grass, irrigating, fertilizing, pest prevention, pruning, and other maintenance of all plantings as needed. Any plant that dies shall be replaced with another living plant that is comparable to the existing plant materials or plant materials specified in the approved landscape plan within ninety (90) days after notification by the City. The Director of Development Services may extend this time period up to an additional ninety (90) days due to weather considerations. If the

plants have not been replaced after appropriate notification and/or extension, the property owner, or his designee or lessee shall be in violation of this Chapter.

(5) Utility Lines

Any damage to utility lines resulting from the negligence of the property owner or his agents or employees in the installation and maintenance of required landscaping in a utility easement is the responsibility of the property owner. If a public utility disturbs plants within a utility easement, it shall make every reasonable effort to preserve the plants and return them to their prior locations after the utility work. However, if some plants die, it shall be the obligation of the property owner to replace them.

(6) Irrigation

Landscaped areas shall be irrigated with a system that is suitable for the type of plantings installed. Where an irrigation system is required, the irrigation system shall comply with the requirements of 30 TAC Chapter 344, §§ 344.72 – 344.77. An in ground irrigation system consisting of water lines, water emitters and a controller is required to have a separate water service if the San Antonio Water System is the purveyor. In addition to the above irrigation requirements the following is required:

A. Design requirements:

1. Pressure

- (a) System to be designed to the lowest static pressure available in a twelve month period.
- (b) If static pressure exceeds design pressure by 15 PSI or more in any zone a flow control device shall be installed.
- (c) Pressure at any point within a zone shall not vary by more than 10% from the design sprinkler operating pressure.

2. Provide separate zones for:

- (a) Turf
- (b) Plants with dissimilar water requirements
- (c) Areas with greater or lesser sun exposures
- (d) Slopes from flat/level areas (topographic information is required for zoning for slope and flat/level area design).

3. Sprinkler head spacing

- (a) Head spacing shall not exceed 50% of diameter
- (b) Spacing shall make allowance for local wind conditions
- (c) Trim perimeters with correct arc and radii selection to eliminate water thrown onto non-landscaped areas
- (d) Show radius/diameter and arc of coverage of a representative number of each type of sprinkler head

4. Landscape water schedule - produce a water schedule for the landscape at a minimum of 80% ET (evapotranspiration) as determined by the local ET.

B. Equipment

1. Controller requirements

- (a) On/off rain switch or other rain shut off device that does not alter program
- (b) Multiple programming capacity
- (c) Controllers capable of 3 cycles per program

2. Valves: Flow control devices on all remote control valves (including a master control valve).

3. Sprinklers

- (a) Use of low-angle heads is encouraged.
 - (b) Pop-up sprinklers and shrub risers will be at a height to clear turf, trees, shrubs, other planting and objects such as fences allowing no obstruction of spray pattern.
 - (c) Pop-up type shrub risers should be used in areas where pedestrians/auto traffic may occur. Drip irrigation should be used in areas between the curb and sidewalk and parking lot areas where over spray onto pavement may occur in accordance with manufacturers recommendations.
 - (d) Low head drainage is to be eliminated or minimized through design or by use of check valves.
 - (e) Sprinkler heads shall be attached to rigid lateral lines with flexible material, swing joints
- (4) Any device on a pressurized line (such as a quick-coupler valve) should be preceded by some sort of isolation valve separate from the primary shut-off valve.

(7) Parking lot shading

A. Applicability

Shading shall be required for parking lots subject to this Section that are located within the project area, and any parking areas (excluding driveways or garages) in residential districts. Canopy trees, as defined in Appendix A, shall be provided to shade a minimum of twenty-five (25) percent of a parking lot. Medium or large trees may be used. A “parking lot” does not include an area used exclusively for the display of motor vehicles for sale as part of an automobile dealership.

B. Calculation of Shaded Area

Existing trees preserved on a site within 12 feet of any edge of a parking lot or in an island or peninsula not less than 9 feet by 18 feet shall be calculated at 100% of the shade coverage shown in Appendix E, under “Shade Area.”

Newly planted trees planted in an island or peninsula not less than 9 feet by 18 feet shall be calculated at 75% of the shade coverage shown in Appendix E, under "Shade Area."

Newly planted trees planted adjacent to a parking lot within 12 feet of any edge of a parking lot shall be calculated at 50% of the shade coverage shown in Appendix E, under "Shade Area."

C. Design

Trees shall be planted within an island not less than 9 feet wide by 18 feet deep.

(Ord. No. 95573 § 7 Amendment G; Ord. No. 97602 § 4; Ord. N0. 98697 § 4 & 6)

(d) Elective Criteria

(1) Generally

In addition to the mandatory requirements, landscape plans shall earn a minimum of seventy (70) points awarded for elective requirements. As an exception to this requirement, landscape plans for commercial parking lots and uses which do not include any off-Street parking within the Street yard shall earn a minimum of twenty-five (25) points.

(2) Tree preservation

A maximum of forty (40) points shall be awarded for the preservation of existing healthy trees. Full credit in accordance with the criteria listed below shall be earned for the preservation of trees within the Street yard up to thirty (30) points. Half credit may be earned for preserving trees within the Street yard above ~~thirty~~ (30) points. Half credit may also be earned for preserving trees outside the Street yard up to a maximum of fifteen (15) points. These points shall be included within the maximum ~~forty~~ (40) points permitted by this elective. Points shall be tabulated for each tree retained in accordance with the following criteria:

Description	Points Awarded
Caliper equal to or exceeding 4, but less than 6 inches	3
Caliper equal to or exceeding 6, but less than 12 inches	4
Caliper equal to or exceeding 12, but less than 18 inches	6
Caliper equal to or exceeding 18 inches	8

Where credit for the preservation of existing trees is being requested, these areas shall be protected as follows.

- A. A protective barrier, beginning at the outside of the drip line of the tree, to protect the root protection zone shall be erected and maintained until construction is completed.
- B. During construction, no excess soil, additional fill, equipment, liquids, or construction debris shall be placed inside the protective barrier, upon the root protection zone, nor shall any soil be removed from within the barrier.
- C. The proposed finished grade and elevation of land within the root protection zone of any tree to be preserved shall not be raised or lowered more than two (2) inches. Welling and retaining methods are allowed outside the root protection zone and shall be done in conformance with the Texas A & M University, Extension Landscape Horticulture, "Protecting Existing Landscape Trees from Construction Damage Due to Grade Changes", Everett E. Janne and Douglas F. Welch, PhD., authors.
- D. The root protection zone for each preserved tree shall remain unpaved and shall have a two to four inch layer of mulch installed to help retain moisture and to prevent erosion.

(3) Screening of Surface Parking

Twenty-five (25) points are awarded for screening a surface parking lot within the Street yard in accordance with the following subsections.

- A. The screening must extend along the entire street frontage of the surface parking lot, exclusive of driveways.
- B. The screening must be at least thirty (30) inches in height. If plants are used, they must achieve the minimum height and form an opaque visual barrier at maturity. If nonliving materials are used to satisfy the screening requirement, plants must be provided along a minimum of twenty-five (25) percent of the screen's frontage.
- C. Any screening placed in a clear vision area must comply with the restrictions contained in § 35-506 of this Code.

(4) Parking Lot Shading

Twenty (20) points are awarded for compliance with subsection (c)(7), above. Further, an additional

- A. Five (5) points are awarded when surface parking lots include canopy trees, as defined in Appendix A, which shade a minimum of thirty-five (35) percent of the entire parking lot; and

- B. Fifteen (15) points are awarded when surface parking lots include canopy trees, as defined in Appendix A, which shade a minimum of fifty (50) percent of a parking lot.

(5) Street trees

Twenty-five (25) points are awarded for the installation of large trees that meet the following requirements:

- A. The trees extend along a minimum of seventy-five (75) percent of the total frontage of the Street yard of the parcel;
- B. The trees shall be spaced on average no more than fifty (50) feet apart measured from trunk to trunk provided the distance between trees does not exceed one hundred (100) feet; and
- C. The trees shall be located no more than seventeen (17) feet from the Street right-of-way line.

(6) Understory preservation

15 additional points can be earned for preservation of existing vegetation adjacent to parking lots or by planting new vegetation utilizing a mixture of canopy trees with understory trees (small species) and large to small shrubs with ground plane perennials. Minimum area of understory preservation shall be ten (10) feet x twenty (20) feet. Where understory does not exist on a site under canopy trees, new understory plants from Appendix E may be installed to meet the above criteria.

Where credit for the preservation of existing understory is being requested, these areas must be protected as follows.

- A. A protective barrier must be erected around the perimeter of each understory area to be preserved and maintained until construction is completed.
- B. During construction, no excess soil, additional fill, equipment, liquids, or construction debris shall be placed inside the protective barrier nor shall any soil be removed from within the barrier.
- C. The proposed finished grade and elevation of land within six (6) feet of an understory area to be preserved shall not be raised or lowered more than three (3) inches unless compensated for by welling or retaining methods.

(7) Infill or Commercial Retrofit Use Patterns

Twenty-five (25) points shall be awarded for the provision of landscaping for an Infill or Commercial Retrofit Use Pattern where not more than 4,300 square feet of impervious surface is added.

(Ord. No. 97332 § 17; Ord. No. 97602 § 3)

(e) Variances

The Director of Development Services may consider and administratively approve variances in situations where the applicant does not strictly comply with the requirements of this section but is willing to provide a comparable alternative. The Planning Commission is designated in accordance with section 118, paragraph 3, of the City Charter to consider all other variance requests and to consider appeals from the decisions of the Director of Development Services. Appeals shall be in writing and must be submitted within thirty (30) days of the Director of Development Services' decision.

The Commission may grant variances upon finding from the evidence presented that the following conditions exist:

- (1) Strict compliance with the requirements of this section will unreasonably burden the use of the property and/or will result in substantial financial hardship or inequity to the applicant;
- (2) The circumstances supporting the granting of the variance are not the result of a hardship imposed or created by the owner; and
- (3) The intent and general purposes of this section are preserved.

The applicant shall provide all evidence necessary for the Director of Development Services and Planning Commission to make their determinations. A variance granted under the provisions of this section shall apply only to the specific building site and structures for which the variance was requested. A fee as specified in Exhibit C shall be required for each variance request from the Planning Commission.

(Ord. No. 97602 § 4)

35-512 Streetscape Planting Standards**(a) Applicability****(1) Generally**

In addition to developments subject to the Landscaping Standards, above, the following shall be subject to the Streetscape Planting Standards as provided herein:

- A. all developments with five (5) or more parking spaces; and
- B. all developments requiring Subdivision review.

Streetscape Planting Standards shall not apply to any Street classification unless Street Trees are required by the Street Improvement Standards, § 35-506(d), above.

(2) Expansion

When a building or parking lot is enlarged, the requirements of this Section shall be applied incrementally such that landscaping shall be required in the same proportion that the enlarged building area or off-street parking area has to the existing development. For example, a ten percent (10%) increase requires ten percent (10%) of the required street trees, with a minimum of one (1) tree to be planted.

(3) Waivers and Exemptions

Should existing site conditions and/or existing development of the property render the planting of Street Trees impracticable, the Applicant may submit a waiver or modification request in accordance with § 35-483 of this Chapter. Local streets within a residential subdivision which service residential lot driveways shall be exempt from the requirements of this Section.

(b) Minimum Requirements

(1) Options

- A. Where no existing or proposed overhead utility lines exist, street trees shall be large trees (see Appendix E), planted within the twelve (12') foot planting strip and shall be located a minimum three (3') feet from the back of the curb (BOC). One (1) large Street Tree shall be required every fifty (50) feet or fraction thereof, measured as an average of the Street frontage along the particular Street. Irrigation shall be provided for planted Street Trees for a minimum of 3 years for establishment.
- B. If existing or proposed overhead utility lines exist along the right-of-way that are greater than 35 feet in height, then the trees shall be medium size (see Appendix E), planted within the twelve (12') foot plant strip and shall be located a minimum of three (3') feet from the back of curb. Medium trees shall be planted every thirty (30') feet. Irrigation shall be provided for planted Street Trees for a minimum of 3 years for establishment.
- C. If existing or proposed overhead utility lines exist along the right-of-way that are lower than 35 feet in height, then the tree shall be a small tree (see Appendix E), planted within the twelve (12') foot plant strip and shall be

located a minimum of three (3') feet from the back of curb. Medium trees shall be planted every thirty (30') feet. Irrigation shall be provided for planted Street Trees for a minimum of 3 years for establishment.

- D. As an alternative to the Streetscaping requirement in the Rights-of-way, requirements may be met by planting large to medium trees within the median. Minimum median width for tree planting will be eighteen (18') feet. Where left turn lanes are provided, the minimum width will be eight (8') feet. One Medium Tree shall be planted every fifty (50') feet and shall be a minimum of six (6') feet from the BOC. Where left turn lanes and/or crossovers are provided, the planting shall begin 15 feet from the nose of the turning island. Preservation of existing trees and understory vegetation may be used to meet this requirement. Irrigation shall be provided.
- (2) In no instance for the Options established in subsection (b)(1)A, (b)(1)B, and (b)(1)C shall the distance between Street Trees exceed one hundred feet (100') on center. Street Trees shall be planted in an even, linear spacing. If shifts to the linear spacing not exceeding two (2') feet are required due to the location of existing infrastructure, development or required sight distance, these shifts may be approved by the Director of Development Services.
- (3) Preservation of existing trees to meet this requirement is not only permissible, but is recommended. A 15-foot existing vegetation buffer along the right-of-way line is required for this option. Waivers for spacing and alignment may be given in order for existing trees to meet the street tree requirement.

(Ord. No. 98697 § 1)